

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**In re Application of
Frank Overstreet**

Serial No.: 10/731,055
Filed: December 9, 2003

For: Positioning Accessory for Camera-Equipped Wireless Terminals

Docket No: 2002-020

PATENT PENDING

Examiner: Mr. Richard Bemben

Group Art Unit: 2622

Confirmation No.: 6723

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

[illegible]

DECLARATION OF IVAN NELSON WAKEFIELD

I, Ivan Nelson Wakefield, hereby declare as follows:

- 1) At the time the above-mentioned application was prepared and filed, I was employed by Sony Ericsson Mobile Communications (USA) Inc., the assignee of 100% interest of the above-mentioned application. I was the responsible Patent Engineer for the invention described in the above-mentioned application entitled, "Positioning Accessory For Camera-Equipped Wireless Terminals."
- 2) At the time the inventor submitted a disclosure for the above-mentioned application, it was standard business practice for Sony Ericsson Inc. to formally review each invention disclosure internally to determine whether to proceed with preparing and filing an application.
- 3) The internal review process began with submitted invention disclosures being

accumulated and periodically reviewed by the Intellectual Property (IP) department of Sony Ericsson. The IP department performed an initial review on the invention disclosure to ensure that Sony Ericsson had not already prepared and/or filed an application covering subject matter similar to that described in the submitted disclosure.

4) Once evaluated by the IP department, the disclosure was sent to a Review Board for final discussion and approval on whether to prepare and file an application covering the idea.

5) At the time the invention was filed, the IP department and the final Review Board independently reviewed invention disclosures. The final Review Board was comprised of employees who were primarily engaged in other areas of the day-to-day business conducted by Sony Ericsson.

6) At the time the invention was filed, it was standard business practice for the Review Board to meet periodically due to the number of submitted disclosures, and because the Review Board members were primarily engaged with day-to-day business operations.

7) At the time the invention was filed, it was standard business practice for Sony Ericsson to request outside counsel to prepare and file an application within three to four months of submission of the invention disclosure.


8) On March 12, 2003, the named inventor of the above-mentioned application, Mr. Frank R. Overstreet, submitted an Invention Disclosure describing the claimed invention. The Invention Disclosure shows conception of the claimed invention not later than March 12, 2003. A copy of the Invention Disclosure is attached hereto as Exhibit 1.

9) After reviewing the disclosure internally, Sony Ericsson prepared a "request to file" letter on or about July 7, 2003, and sent the letter to outside counsel, who was Mr. David E. Bennett, a registered patent attorney with Coats and Bennett, P.L.L.C. A copy

of the request to file letter to Mr. Bennett is attached hereto as Exhibit 2.

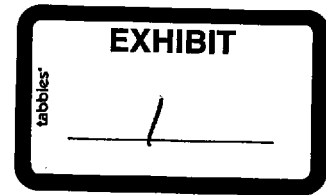
I hereby declare that all statements made herein of my knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

1/12/2009
Date Ivan Nelson Wakefield





Sony Ericsson



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Invention Disclosure Form

Docket No. _____

Date opened: _____

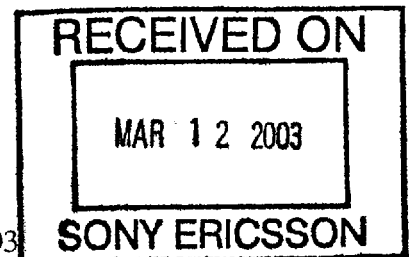
1. Invention Title: Positioning Device for Camera-Equipped Wireless Terminals

2. Submitted by:	1 st Inventor	2 nd Inventor	3 rd Inventor
(a) Full Name (3 names or 2 names & 1 initial)	Frank R. Overstreet		
(b) Home Address	10817 Leslie Drive Raleigh, NC 27614		
(c) Work Phone	(919) 472-6832		
(d) Citizenship	USA		
(e) Pay No. (5 digit)	contractor		
(f) Manager	Al L'Homme		
(g) Cost Center			
(h) Your Product Unit			
CDMA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GSM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CTO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M2M	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(i) Your Group:			
Hardware	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Software	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mechanics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Date the invention was conceived :

5. Identify dates :

- Past disclosure of the invention outside the company: NA
- Future disclosure of the invention outside the company: NA
- Publication of the invention: NA
- Discussion with business partners about the invention: March 6, 2003



6. Related known products, patents, disclosures, or publications:

7. Please complete the second page of this form completely describing your invention, along with any other relevant documentation.

The invention described in the attached invention disclosure is hereby submitted under my employment agreement with SEMC

Inventor's full signature	Date	Witnessed, read, understood, and signed by	Date
(1) <i>[Signature]</i>	March 12, 2003	(1) <i>[Signature]</i>	3/12/03
(2)		(2) <i>[Signature]</i>	2/12/2003
(3)		(3)	

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Sony Ericsson

Invention Disclosure

Docket No. U03 0050

Title: Positioning Device for Camera-Equipped Wireless Terminals

1. What area of technology is your invention in? (Check 2 maximum)

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Accessories | <input checked="" type="checkbox"/> Mechanics | <u>Software</u> |
| <input type="checkbox"/> Acoustic / audio | <input type="checkbox"/> Packaging | <input type="checkbox"/> Applications |
| <input type="checkbox"/> Antennas | <input type="checkbox"/> Phone architectures/RF | <input type="checkbox"/> Diagnostic/tools |
| <input type="checkbox"/> Baseband / digital | <input type="checkbox"/> Phone features/concepts | <input type="checkbox"/> Java |
| <input type="checkbox"/> Batteries / chargers | <input type="checkbox"/> Systems | <input type="checkbox"/> Physical layer/firmware/DSP |
| <input type="checkbox"/> Bluetooth | <input type="checkbox"/> Systems algorithms | <input type="checkbox"/> Positioning/GPS |
| | <input type="checkbox"/> Displays / LCDs | <input type="checkbox"/> Protocol |

2. What are the benefits of your invention?

- | | | |
|--|---|---|
| <input type="checkbox"/> Appearance | <input checked="" type="checkbox"/> Easier to use | <input checked="" type="checkbox"/> New feature |
| <input checked="" type="checkbox"/> Better performance | <input type="checkbox"/> Efficiency | <input type="checkbox"/> Power saving |
| <input type="checkbox"/> Cost savings | <input type="checkbox"/> Improved audio | |

3. What problem is solved by your invention and how was it solved before?

Cite any known inventions for which yours is a replacement. Tripods. A published application #20010013890 "Camera for Use With Personal Digital assistants With High Speed Communication Link" had similar aspects but always seemed to require that a camera attach to a PDA. This invention assumes the camera is integral to the wireless terminal.

4. What is your invention and how is it better than prior solutions? Describe in detail the structure, and how to make and use your invention, particularly the features which make it advantageous. Include drawings, flow charts, block diagrams, schematics, etc. See following attachments.

The invention described in the attached invention disclosure is hereby submitted under my employment agreement with SEMC

Inventor's full signature	Date	Witnessed, read, understood, and signed by	Date
(1)		(1)	
(2)		(2)	
(3)		(3)	

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Technical information

NAME OF INVENTION

Positioning Device for Camera-Equipped Wireless Terminals.

BACKGROUND

This invention relates to camera-equipped wireless terminals and describes a device which attaches to camera-equipped wireless terminals for the purpose of providing a stable platform with multi-axis positioning of the camera-equipped wireless terminal. Uses include but are not limited to: handsfree photography, long exposure photography and remote photography.

Traditional chemical film cameras and the more recent digital cameras frequently have the ability to connect to a tripod for the purposes of handsfree photography, long exposure photography and remote photography. The cameras are typically attached to a tripod by placing the camera on the tripod and threading a screw through the tripod into a threaded hole in the cameras base. In the case of cellphones and PDA's, this traditional approach is not practical as the threaded hole would be unsightly, would require too much space and would be difficult to withstand potential torque applied to it. In addition, the entire configuration would be bulky as most tripods are significantly larger than modern camera-equipped wireless terminals.

This invention overcomes the above limitations by providing a compact accessory that attaches to the camera-equipped wireless terminal, provides multi-axis positioning control, can be interfaced with a traditional tripod as well as providing an interface for flash and other accessories.

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(3)		(3)	

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DESCRIPTION

In one possible configuration shown in figure 1, the device essentially consists of a base, a positioner and one or more interfaces to the terminals system bus. This device may function as a charging stand without affecting the devices use as a camera positioner. A flash accessory may also be attached to the device.

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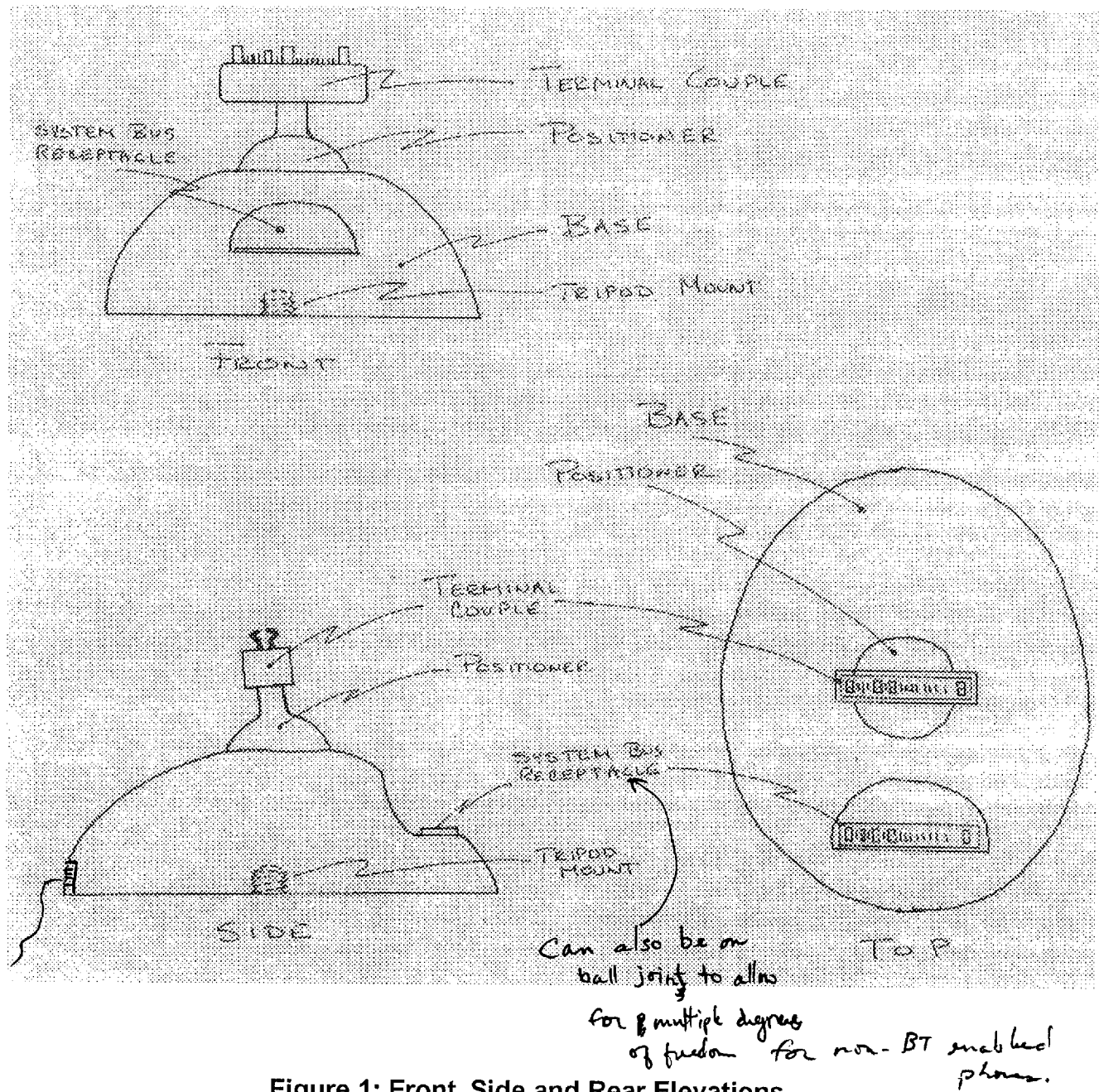


Figure 1: Front, Side and Rear Elevations

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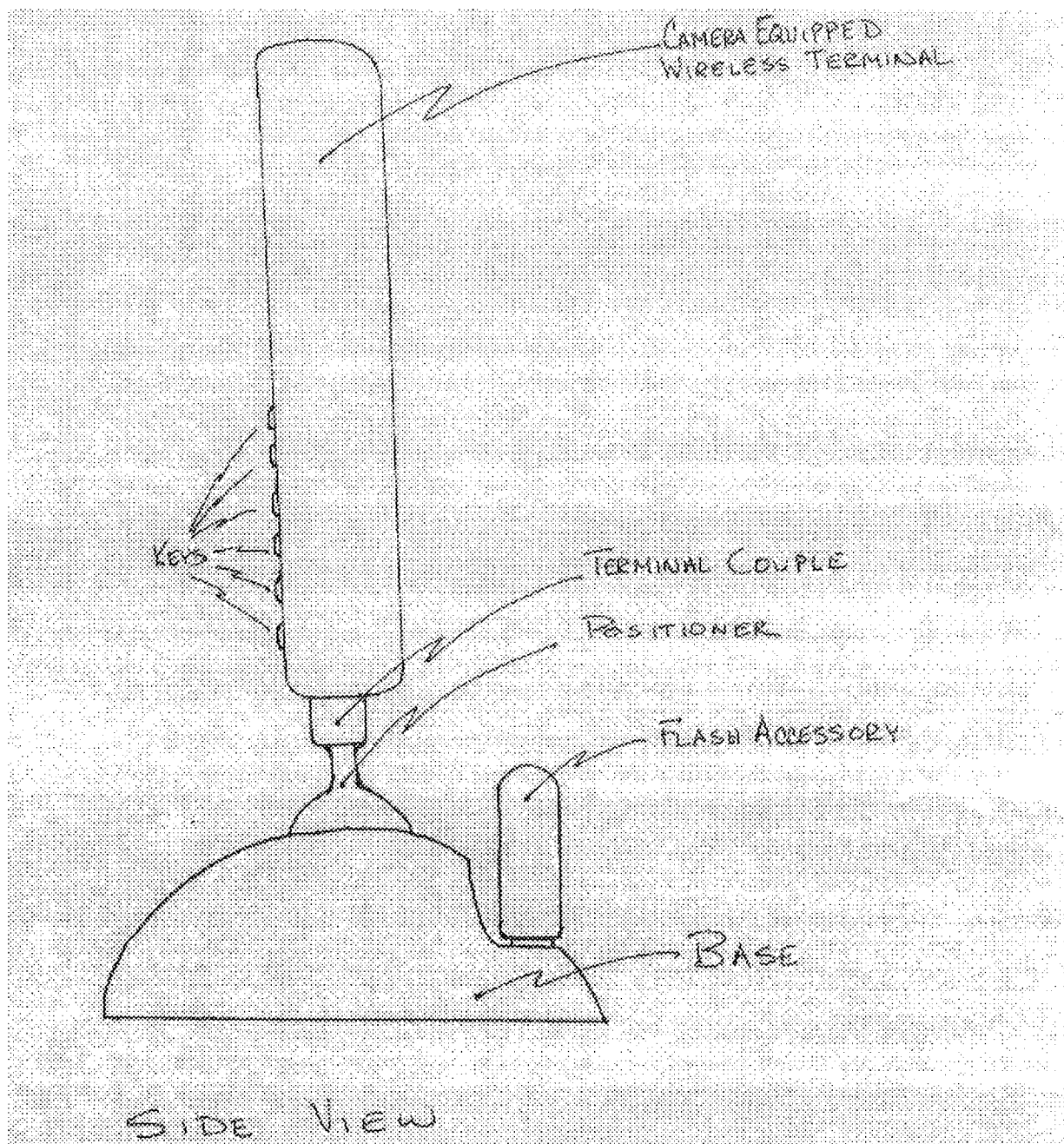


Figure 2: Side View

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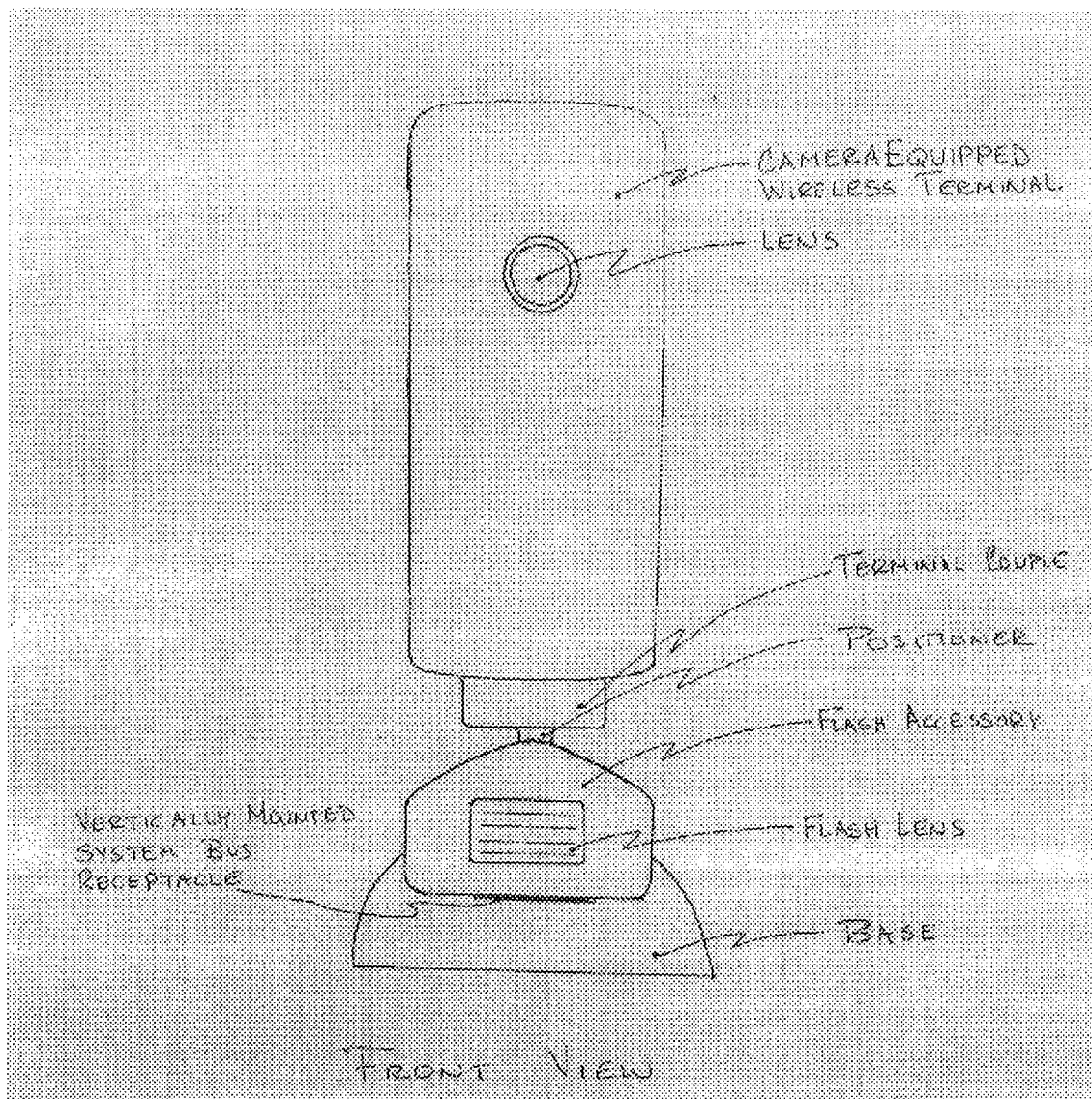


Figure 3: Front View

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Base

The base has sufficient weight and "footprint" to support the camera-equipped terminal in a variety of positions. On the underside of the base is a standard tripod mounting point for use in photographic situations where the height adjustment of a traditional tripod is required. A suction cup mount may be used in addition to or, in place of the standard threaded tripod mounting point.

Contained within the base may be one or more system bus connectors for the purpose of attaching charging, flash and other accessories to the terminal. The base attaches to the positioner. One possible base is shown above:

Positioner

The positioner attaches the base to the terminal couple and offers one or more degrees of freedom. Positioning may be achieved by a ball and socket (shown), ratcheting post, geared post or a variety of other means. The positioner may have a telescoping ability. Electrical connectors may pass through the positioner going to and from the base and terminal couple.

Terminal Couple

The terminal couple attaches the positioner to the wireless terminal. The couple may be a connector such as a SonyEricsson 3V connector, and or other more universal grasping mechanisms such as a clamping device. Many mechanical possibilities exist for "other universal grasping mechanisms" but have in common the ability to securely hold the camera-equipped wireless terminal across all it's positioning angles.

An additional possibility is that the terminal couple could be attached to a standard tripod socket. This would allow the camera-equipped wireless terminal to be directly connected to a tripod. One such example is shown below. While systembus connector is shown, nothing would prevent a more universal grasping mechanism from being used in place of the system bus connector.

ADDITIONAL EMBODIMENT

Another embodiment is of a new "mini" tripod designed specifically for mounting camera-equipped wireless terminals. This tripod differs from traditional tripods in the following:

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- Rather than using a screw to secure the camera to the tripod, a positioner and terminal couple as described above may be used.
- An interface to the terminals system bus may be provided for attaching flash and other accessories. The system bus interface is electrically connected to the terminal couple.

STATE-OF-THE-ART

Tripods are the current state-of-the-art for stable positioning control of consumer cameras. Tripods are bulky and require mounting hardware which in the case of a camera-equipped cellphone would be too massive. This invention improves on the state-of-the-art by providing a stable yet compact positioning device which when necessary can be directly attached to a conventional tripod.

A search of the US patent office for both granted and patent applications did not turn up any related prior art. The following keywords were used in the search: cellphone, tripod, camera, attaches, accessory, wireless, adapter. One published application #20010013890 "Camera for Use With Personal Digital assistants With High Speed Communication Link" had similar aspects but always seemed to require that a camera attach to a PDA. This invention assumes the camera is integral to the wireless terminal.

MERITS OF THE INVENTION

Merits of this invention are:

- Facilitates remote control of camera functionality.
- Greatly enhances and expands a photographer's ability to take self-portraits and group portraits including the photographer.
- Provides a stable platform for long exposure photography.
- Capable of functioning as a charging port
- Capable of enabling flash photography.
- Could have a universal type couple allowing a broad range of devices to be attached.

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Sony Ericsson Mobile Communications (USA) Inc.
7001 Development Drive
RTP, North Carolina 27709

EXHIBIT

tabbles

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VIA FEDERAL EXPRESS

July 7, 2003

David E. Bennett, Esq.
Coats & Bennett
1400 Crescent Green
Suite 300
Cary, NC 27511

REQUEST TO FILE PATENT APPLICATION

SEMC Docket No.: U03 0050

Title: Positioning Device for Camera-Equipped Wireless Terminals

Inventor: Frank R. Overstreet

Dear David:

Please prepare and file a patent application in the U.S. Patent and Trademark Office on the above referenced invention. A copy of the invention disclosure and the inventor's questionnaire is enclosed. Any potential statutory bar date should be identified in one of these two documents; however, any potential bars should also be verified with the inventor.

A first draft of the application should be submitted to the inventor within three (3) months. Please advise if there is any problem with this schedule.

All rights in this application are to be assigned to Sony Ericsson Mobile Communications AB.

If you wish to discuss any matter regarding this application, please do not hesitate to contact me. Please contact the person noted above for any technical assistance in preparing the application.

Best regards,

Debra K. Stephens / GCS

Debra K. Stephens
General Counsel, Intellectual Property

Enclosures